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## A NEW *GAMBUSIA* FROM ANDROS ISLAND, BAHAMAS

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*Gambusia manni* Hubbs, known from both New Providence and Andros Island, appears to be absent from the southern part of the latter island. In its place there occurs another and similar form that may be described as follows.

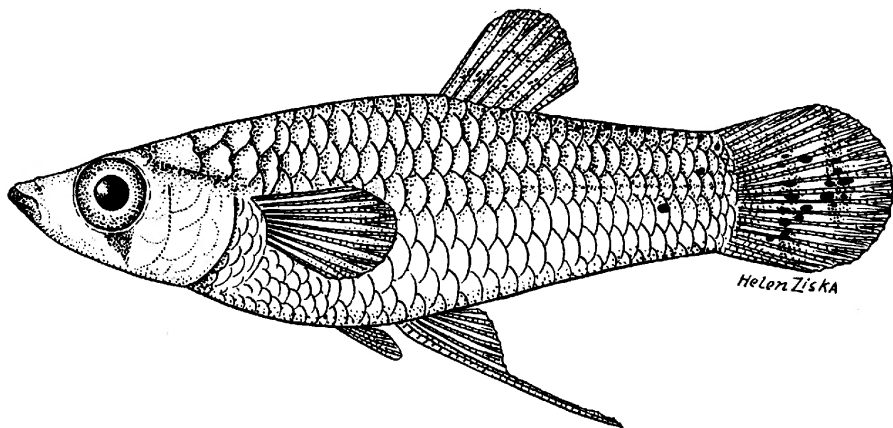


Fig. 1. *Gambusia hubbsi*, new species. Type, 30 mm. standard length.

### *Gambusia hubbsi*, new species

TYPE.—No. 12454, American Museum of Natural History. Figure 1.

Standard length, 30 mm.; total length, 34.5. Head, 3.2; depth, 3.2; dorsal  $7\frac{1}{2}$ ; anal,  $8\frac{1}{2}$ ; scales, 27. Axis of body angulated as in *G. manni*, but body much compressed for a *Gambusia*. Caudal peduncle markedly compressed, 1.3 in head; head broad and flat; interorbital, 2.3; eye, 3.0; snout, 3.3; dorsal behind anal, midway between caudal base and gill opening. The gonapodium 3.0, equal to distance from snout to pectoral axil and falling short of caudal base by depth of body at its tip. The pectorals and pelvics coequal in reach, extending slightly beyond the origin of the anal; pectorals, 1.2; pelvics, 3.0. Otherwise, very similar to *Gambusia manni*. The edge of the spinule area of the third anal ray is markedly convex instead of nearly straight as in *G. manni*. Figure 2 illustrates the differences in this gonapodial character.

In alcohol the color is a light tan. The scale pockets are margined with dark except on the lower portions, which are silvery. There is no evident axial streak. The predorsal streak is distinct, merging into the dark upper portions of the head. There is no postgonapodial streak. The snout and chin are blackish. There is a conspicuous, oblique bar (backward and down) below the eye, and a narrow dark

horizontal line from the eye to dorsal termination of the gill cleft. There are a few irregular black punctations on the dorsal fin and somewhat more on the caudal. There are also a very few black specks on the sides. The spotting on the sides of the paratypes is for the most part greater than in the type, in some tending to arrange in lines.

In the females the body depth is greater than in the males, reaching as high as 3.1. The anal of the female is 1.5 in the head. The pectorals reach about halfway between the origin and tip of the pelvic; pectorals, 1.2; pelvics, 2.5. The pelvics reach the anal origin.

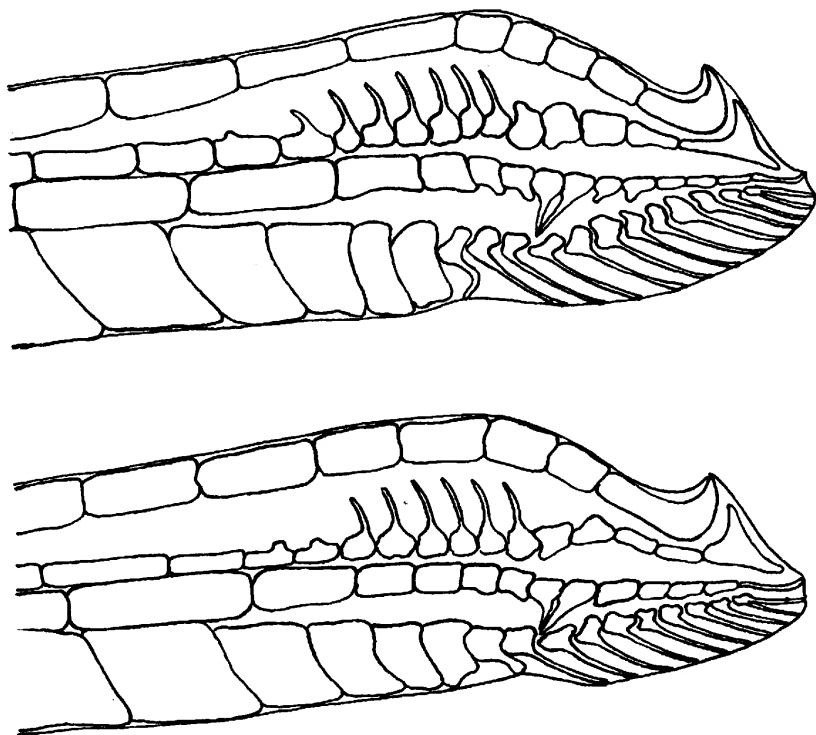


Fig. 2. Tips of gonapodia of *Gambusia*. Upper, *G. hubbsi*; lower, *G. manni*.

There are 68 paratypes (A. M. N. H. No. 12455), 10 of which are males. They range from 13 to 37 mm. with a mode of 27 (female) and from 16 to 30 mm. with a mode of 25 (male) in standard length.

The colors in life are distinctly more brilliant than those of *G. manni*. Chiefly, the fishes of both sexes are prominently a metallic bluish with a distinct metallic sheen. The writer has seen *G. manni* in its native haunts, from both north Andros and New Providence (Breder, 1932, 1933), and noted that the differences are so marked that these fishes can be distinguished at sight. The differences in behavior are also

well marked. *G. manni* on both islands was seen to be a rather timid little brownish fish, readily scattered and not easily caught, nor especially given to surface swimming as these fish go. *G. hubbsi*, on the other hand, could not be driven from the surface. They were consequently easily caught and the broken-up school immediately reassembled. These fish also swam up to and followed waders in a manner suggesting a considerable amount of curiosity. Lest it be thought that these differences were due to water or other conditions, it is pointed out that other fishes caught in company with them behaved the same on both north and south Andros. A full discussion of this will be given in a forthcoming report on the ecology of the region.

Dr. C. L. Hubbs, for whom I take pleasure in naming this fish, kindly compared some specimens with the extensive series of poeciliids in his charge at the University of Michigan. Consequently, I am able to make the following remarks, based on his findings.

The present form resembles the Jamaican *Gambusia oligosticta* Regan in the relatively large size of the head, and the Cuban *Gambusia puncticulata* Poey in the relatively moderate spotting. The *G. manni* from Lake Forsyth, Andros (Breder, 1932), resembles *G. hubbsi* somewhat more closely than do those from Lake Killarney, New Providence, but the former are small, the largest being 25 mm. s.l. and the mode 18.5. It would thus seem that Lake Forsyth is inhabited by a small form, although those in Lake Killarney were just about of the same size. Hubbs's type of *G. manni* was 23.5 (Hubbs, 1927a), but he had females up to 50 and males to 30 mm. and they were, presumably, aquarium grown specimens. *G. hubbsi*, on the other hand, is a definitely larger fish than any *G. manni* seen by us. The latter is known also from several other islands in the Bahamas (Hubbs, 1927b); New Providence, Andros (except south Andros ?), Green Turtle Cay, and San Salvador.

#### BIBLIOGRAPHY

- BREDER, C. M., JR. 1932. 'An annotated list of fishes from Lake Forsyth, Andros Island, Bahamas, with the descriptions of three new forms.' Amer. Mus. Novitates, No. 551, pp. 1-8. August 15.
1933. 'The Bacon Andros Expedition.' Bull. N. Y. Zool. Soc., XXXVI (3), pp. 64-65. May-June.
- HUBBS, C. L. 1926. 'Studies of the fishes of the order Cyprinodontes VI.' Misc. Pub. Mus. Zool. Univ. Mich., (XVI), pp. 1-86. July 9.
- 1927a. 'Studies of the fishes of the order Cyprinodontes VII.' *Gambusia manni*, a new species from the Bahamas. Copeia, No. 164, pp. 61-66. July-September.
- 1927b. 'Supplementary Note on the Bahamas Top Minnow.' Copeia, No. 165, p. 92. December 23.

